

Remarks

Applicants thank the Office for entering the Applicants' response to an Office Action filed before the U.S. Patent and Trademark Office on December 15, 2009. Claims 1-6, 8-12 and 14-21 were pending in this application. Claims 5, 15, 16, 18 and 20 have been withdrawn from consideration for allegedly being drawn to a non-elected invention and claims 1-4, 6, 8-14, 17 and 19 have been rejected. By way of this amendment and response, claims 1, 6, 14, 16, 19, 20 and 21 have been amended to more fully claim the subject invention and new claim 22 has been added. Support for the claim amendments and new claims can be found throughout the teachings of the originally filed specification, drawings and claims, for example, at least at, page 3, lines 27-33. *No new matter has been added.*

Information Disclosure Statement

The Office has failed to consider the Information Disclosure Statement filed 12/15/2009 by the Applicants, alleging that it does not include a concise explanation of the relevance for one or more of the Japanese language documents cited in the Information Disclosure Statement (*e.g.*, references BD, BE and BG).

Applicants respectfully submit that the Applicants are not in possession of partial or complete English language translations of the Japanese language documents cited on the foregoing Information Disclosure Statement. However, Applicants provide a copy of the English language translation of an Office Action mailed in the corresponding Japanese application no. 2006537485, which mentions the Japanese language documents, for the Office's convenience. Applicants hope that any potential relevance of the foregoing Japanese language documents will be apparent from the English language translation of the Office Action, included in an Information Disclosure Statement filed herewith.

In view of the foregoing, Applicants respectfully request that the Office considers the foregoing references and returns the executed form to the Applicants for their records.

Claim Objections

Claims 1 and 19 have been objected to for various informalities. *See*, page 6 of the Office Action mailed 3/29/2010.

Claims 1 has been amended to replace “comprising” with “comprises” following a pretreatment module and the word “are” is replaced with “is” before “purification means,” thereby to obviate the objection set forth on page 6.

Claim 19 has been amended to add the word “between” before the phrase “the means for purifying a liquid by tangential filtration and a fluid outlet formed in the housing,” thereby to obviate the rejection set forth on page 6.

In view of the foregoing claim amendments, Applicants respectfully request reconsideration and withdrawal of the claim objections.

Rejections Under 35 USC § 112, Second Paragraph

Claims 1-4, 6, 8-12, 14, 17, 19 and 21 have been rejected as allegedly being indefinite under 25 USC § 112, second paragraph.

In particular, the Office has taken the position that “the phrase ‘adapted to be associated upstream of a purification treatment module in a fluid purification system (lines 2 and 3) renders the claim indefinite because the purification treatment module and the fluid purification system are not positively claimed and it is not clear whether or not the purification treatment module and the purification system are intended to be required structure. . . . Further, the word ‘associated’ renders the claim indefinite because it is not clear what that means here. . . .” *See*, page 7 of the Office Action mailed 3/29/2010.

Without acquiescing to the validity of this rejection and solely in an effort to expedite prosecution and allowance of the pending claims, claim 1 has been amended to more fully claim the subject pretreatment module. Specifically, claim 1 now recites a disposable pretreatment module comprising: (1) a purification pretreatment means; and (2) a housing in which the purification pretreatment means is housed; wherein the housing contains from the outset a cleaning agent to clean at least a portion of a

purification system which is downstream of the pretreatment module, after a cleaning cycle has been started.

Accordingly, claim 1, as amended, focuses on the particular elements of the pretreatment module and does not include the phrase “adapted to be associated upstream of a purification treatment module in a fluid purification system” considered indefinite by the Office.

Further, the Office states that “the phrase ‘to clean’ bridging lines 11 and 12 renders the phrase indefinite because it is not clear what this modifies, i.e., what is to clean . . .” *Id.*

Applicants respectfully traverse this rejection. Claim 1 includes the phrase “to clean at least a portion of a purification system which is downstream of the pretreatment module.” Applicants submit that claims must be construed in light of the teachings of the application as filed and not in a vacuum. Contrary to the Office’s contention, Applicants note that based on the plain reading of claim 1 in view of the teachings of the originally filed application, it would have been abundantly clear to one of ordinary skill in the art what this phrase actually means.

Applications respectfully submit that it is abundantly clear from a reading of the originally filed application that the claimed pretreatment module includes a cleaning agent from the outset, which facilitates distribution of the cleaning agent into the entire purification system, thereby to clean at least a portion of the purification system which is downstream of the pretreatment module. This aspect of the claimed invention is discussed throughout the teachings of the application as filed. For example, on page 1, lines 15-17, of the corresponding International PCT patent application no. PCT/IB2004/003724, the specification states “. . . ***it is necessary to clean, and in particular to disinfect, the component parts regularly,*** in particular the purification means employing tangential filtration.” Further, on page 2, lines 11-13, the specification states “. . . the invention exploits the possibility of using disposable modules, and thus of replacing them periodically, ***to introduce a cleaning agent into the fluid purification system to clean at least part thereof.***” Additionally, on page 5, lines 27-32, the specification states “. . . the water purification pretreatment module 11 comprises a housing 24 in which the cleaning agent is placed from the outset so that it is in the flow

path of water inside the casing 20 and therefore dissolves in contact with the water and thus *cleans all of the portion of the water purification system 10 that is downstream of the water purification pretreatment module 11. . . .*”

Therefore, based on the teaching of the originally filed application, it would have been abundantly clear to one of ordinary skill in the art as to what is being cleaned by the cleaning agent. Specifically, it would have been abundantly clear to one of ordinary skill in the art that the cleaning agent in the claimed invention is intended to clean (or disinfect) parts/portions of the purification system which is downstream of the claimed pretreatment module.

With respect to claim 21, the Office is of the opinion that the phrase “the fluid” in the claim is indefinite with respect to which recitation of “fluid” in claim 1 it refers to. Applicants understand that this rejection should be obviated in view of the amendments to claims 1 and 21.

Applicants respectfully believe that the foregoing amendments and remarks should obviate each of the indefiniteness rejections and request reconsideration and withdrawal of the same.

Rejections Under 35 USC § 102

Claims 1-4, 6-11, 14, 17 and 19 have again been rejected under 35 USC §102(b) as allegedly being anticipated by U.S. Patent No. 4,780,197 in the name of Schuman (hereinafter referred to as “*Schuman*”), on the grounds that *Schuman* “teaches a module (abstract), which is fully capable of being disposed of, is fully capable of being used for pretreatment, e.g., by using subsequent treatment means (Fig. 2, ref. 84 and col. 6, lines 44 and 45 upstream of Fig. 2, especially ref. 72, 68, 78 and col. 5, lines 19-25), is fully capable of being located upstream of a purification treatment module comprising a means for purifying a fluid by tangential filtration in a fluid purification system, the module comprising a purification pretreatment means (Fig. 2, ref. 56 and col. 4, line 19) and a housing (Fig. 2, ref. 24, including ref. 28 and 94, and col. 3, line 33, 34, and 44 and col. 5, line 48) in which the purification means are housed, wherein fluid communication may be established between the purification system and the pretreatment module (Fig. 2, ref. 30, 32, 34 and 38 and col. 3, lines 45-50 and col. 6, lines 35-56), and wherein the housing

contains from the outset a cleaning agent (Fig. 2, ref. 104 and col. 5, line 61) disposed to be fully capable of coming in contact with a fluid caused to circulate inside the housing.” See, page 9 of the Office Action mailed 3/39/2010.

Applicants respectfully traverse this rejection at least for the following reasons. For a prior art reference to anticipate a claimed invention under 35 U.S.C. §102, the prior art reference must teach *each and every limitation* of the claimed invention. See, *Lewmar Marine v. Barient* 827 F.2d 744, 3 USPQ2d 1766 (Fed. Cir. 1987). As Applicants had previously emphasized and further as discussed in detail *infra*, *Schuman* fails to teach or suggest each and every limitation of the claimed invention.

To begin with, it appears that the Office has failed to appreciate the novel and inventive features of the claimed invention as well as the differences between the claimed invention and devices that were in the prior art, including the one disclosed in *Schuman*.

The claimed invention provides a unique disposable pretreatment module which is capable, among other things, of *distributing a cleaning agent into a purification system located downstream of the module*. For example, as recited in amended claim 1, a disposable pretreatment module is provided, which comprises: (1) *a purification pretreatment means*; and (2) *a housing in which the purification pretreatment means is housed; where the housing contains from the outset a cleaning to clean at least a portion of a purification system which is downstream of the pretreatment module*, after a cleaning cycle has been started.

Accordingly, the claimed *disposable pretreatment module* is designed to include *a cleaning agent in the housing of the pretreatment disposable module from the outset* such that it can come in contact with the fluid flow inside the housing and *as a result, clean the purification system which is downstream of the pretreatment module*. See, for example, throughout the teachings of the specification as filed, and specifically at page 5, lines 27-33 of the corresponding International PCT patent application no. PCT/IB2004/003724.

First and foremost, *Schuman* fails to teach or suggest a disposable pretreatment module to clean a purification system, as claimed. Instead, *Schuman* discusses a *module containing a chemical dispenser to clean water*. Notably, the filter and chemical dispenser assembly described in *Schuman* is distinct from the claimed invention, both

structurally as well as functionally. For example, in the device of *Schuman*, **a chlorinator assembly is placed inside a filter element** and both appear to be connected, where the chlorinator assembly is intended to **clean the fluid circulating through the assembly**. In the device of *Schuman*, the chemically treated and filtered water is collected at the outlet. This is in contrast to the claimed invention, **where the pretreatment purification means** (which the Office appears to equate to the filter element of *Schuman*) **is placed inside a housing, which includes a cleaning agent from the outset**. In the claimed device, the cleaning agent does not clean the circulating fluid but portions of the downstream purification system, after a cleaning cycle has been started.

Accordingly, the filter and chemical dispenser assembly described in *Schuman* is both structurally and functionally distinct from the claimed pretreatment module. Applicants again point out that, in contrast to *Schuman*, which utilizes the chlorinator assembly **to chemically treat the water** which flows through the flow passage of the filter element in the device of *Schuman*, the cleaning agent in the claimed module is intended **to clean at least a portion of the purification system downstream of the pretreatment module**.

Accordingly, because *Schuman* fails to teach or suggest each and every limitation of the claimed invention either explicitly or inherently, it cannot anticipate claim 1 or the remaining claims, each of which depends either directly or indirectly from claim 1.

In view of the foregoing remarks, reconsideration and withdrawal of this rejection is respectfully requested.

Rejections Under 35 USC § 103

Claim 12 has been rejected under 35 USC §103(a) as being unpatentable in view *Schuman*. Specifically, the Office has taken the position that “skilled artisan would have found it obvious to use an agent comprising bleach in the module of *Schuman*” *Id.* Applicants respectfully traverse this rejection for the following reasons.

As an initial matter, Applicants note that claim 12 depends from claim 1 and, therefore, includes each and every limitation of claim 1.

Applicants respectfully submit that the Office has not made a *prima facie* case of obviousness in this instance by failing to provide a rational basis for rendering claim 12 obvious.

For example, in a recent case, *KSR International Co. v. Teleflex Inc. et al.* (127 S. Ct. 1727 (2007)), the Supreme Court stated that “[r]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”

Applying the foregoing legal precedent to the instant case, Applicants note that the Office appears to make conclusory statements that claim 12 is obvious in view of *Schuman* coupled with the knowledge of one of ordinary skill in the art, however, the Office fails to provide a rational basis for arriving at such a conclusion.

For example, as discussed above, the claimed invention, as recited in claim 1, relates at least in part to, ***a disposable pretreatment module*** which comprises: ***(1) a purification pretreatment means; and (2) a housing in which the purification pretreatment means are housed; where the housing contains from the outset a cleaning agent to clean at least a portion of a purification system downstream of the pretreatment module,*** after a cleaning cycle has been started.

Claim 12 relates to types of cleaning agents. *Schuman* discusses the use of chlorine as the chemical agent to purify water. Based on the teachings of *Schuman*, not only would there not have been any motivation to specifically use bleach in the device of *Schuman*, but even if, *arguendo*, the device of *Schuman* included bleach, one of ordinary skill in the art would have used bleach to clean a body of water and not for cleaning at least a portion of the purification system. As such, based on the teachings of *Schuman* along with the knowledge in the art, one of ordinary skill in the art would not have had any motivation to use the cleaning agent disclosed in *Schuman* the way it is used in the claimed device.

In view of the foregoing remarks, Applicants submit that the claimed invention, as set forth in claim 12, or any of the pending claims, cannot be obvious in view of the teachings of *Schuman* coupled with the knowledge in the art, and this appears to the Office’s own hypothesis. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

Double Patenting Rejection

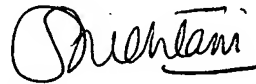
Claim 1 has been rejected on the basis of non-statutory obviousness-type double patenting as being unpatentable in view of claims 1 and 3 of U.S. Patent No. 4,944,875.

Without acquiescing to the validity of this rejection and solely in an effort to expedite allowance of the pending claims, Applicants submit that the Applicants will consider filing a terminal disclaimer once the allowance subject matter has been determined, which will obviate this rejection.

Conclusion

In view of the foregoing amendments and arguments, allowance of the instant application with all pending claims is respectfully solicited. If a telephonic conversation with Applicants' attorney would help expedite the prosecution of the above-identified application, the Examiner is urged to call the undersigned at the number below. Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account no. 13-3577.

Respectfully submitted

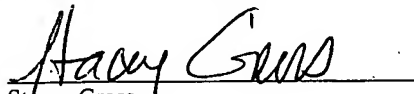


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The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on June 29, 2010.


Stacey Gross